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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,525	07/09/2001	Jay M. Short	DIVER1230-2	7453

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EXAMINER

HUTSON, RICHARD G

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 10/01/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,525

Applicant(s)

SHORT ET AL.

Examiner

Richard G Hutson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-92 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-92 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-23, 40, 41, 67-81, 82-85, drawn to an isolated nucleic acid encoding a polypeptide having phosphatase activity, methods of expressing said nucleic acid, oligonucleotide probes, classified in class 435, subclass 194.
- II. Claims 24-35, 64, 86, 87, drawn to an isolated polypeptide having phosphatase activity and enzyme preparations comprising said polypeptide, classified in class 435, subclass 194.
- III. Claims 36-39, drawn to an antibody that binds to a phosphatase, classified in class 530, subclass 387.1.
- IV. Claims 42-55, drawn to a method of generating a variant, classified in class 435, subclass 91.1.
- V. Claims 56-60, drawn to a computer readable medium and a computer system comprising a nucleic acid sequence, classified in Class 702, subclass 20.
- VI. Claims 61-63, drawn to a method for comparing a first sequence to a reference sequence or identifying a feature in a sequence, classified in class 435, subclass 6.

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- VII. Claim 65, drawn to a method for catalyzing the hydrolysis of phosphates, classified in class 435, subclass 168.
- VIII. Claim 66, drawn to an assay for identifying functional polypeptide fragments, classified in class 435, subclass 21.
- IX. Claims 88-92, drawn to a method for modifying small molecules, classified in class 435, subclass 168.

For each of inventions I-IX above, restriction to one of the following is also required under 35 USC 121. Therefore, election is required of one of inventions I-IX and one of the following SEQ ID NOs:

SEQ ID NOs: 19-54

The inventions are distinct, each from the other because of the following reasons:

Inventions corresponding to each of SEQ ID NOs: 19-54 are unrelated.

Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, represent structurally different polypeptides and the polynucleotides encoding them. Therefore, where structural identity is required, such as for hybridization or expression, the different sequences have different effects.

Inventions I-III and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In

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the instant case the nucleic acid of Group I, the polypeptide of Group II, the antibody of Group III and the computer readable medium of Group V, each comprise a chemically unrelated structure capable of separate manufacture, use and effect. The polypeptides of Group II and III are comprised of different amino acid sequences and the nucleic acid of Group I is comprised of nucleic acid sequence. The computer readable medium and computer system comprising the nucleic acid sequence is structurally distinct from each of the protein, antibody, and nucleic acid and is functionally distinct from each of these other groups. The nucleic acid has other utility besides encoding protein such as a hybridization probe, and the proteins can be made synthetically. Additionally, the protein can be used to perform specific biological function(s) which are independent of the function(s) of the nucleic acid molecule.

Inventions I and IV are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the nucleic acid of Group I can be used in a materially different process such as one in which the nucleic acid is used to transform a bacterial host cell for heterologous expression of the polypeptide.

The polypeptide of Group II, the antibody of Group III, and the computer readable medium of Group V are unrelated to the method of Group IV as they are neither used nor made by the method of Group IV.

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Inventions V and VI are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the computer readable medium Group V can be used in a materially different process such as one in which the computer readable medium is used in a method to store the nucleic acid sequence information.

The nucleic acid of Group I, the polypeptide of Group II, and the antibody of Group III are unrelated to the method of Group VI as they are neither used nor made by the method of Group VI.

Inventions II and inventions VII, VIII and IX are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the polypeptide of Group II can be used in a materially different process such as one in which the polypeptide is used to generate antibodies.

The nucleic acid of Group I, the antibody of Group III and the computer readable medium of Group V are unrelated to the methods of Groups VII, VIII and IX as they are neither used nor made by the methods of Groups VII, VIII and IX.

The methods of Groups IV and VI - IX are independent as they comprise different steps, utilize different products and produce different results.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the literature and sequence searches required for each of the Groups are not required for another of the Groups, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard G Hutson whose telephone number is (703) 308-0066. The examiner can normally be reached on 7:30 am to 4:00 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on (703) 308-3804. The fax phone numbers for the organization where this application or proceeding is assigned

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are (703) 305-3014 for regular communications and (703) 305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

A handwritten signature in black ink, appearing to read "Richard Hutson", with a long horizontal line extending to the right.

Richard Hutson, Ph.D.
Patent Examiner
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September 30, 2002